The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte RAYMOND ANTHONY JOAO

Appeal No. 2002-0400
Application 09/515,060

HEARD: JANUARY 23, 2003

Before THOMAS, KRASS and GROSS, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellant has appealed to the Board from the examiner's final rejection of claims 1, 2, 4-7, 9, 11-19, and 21-26.

Representative claim 1 is reproduced and attached as an appendix to this opinion.

The following references are relied on by the examiner:

Dunn et al. (Dunn) 5,721,829 Feb. 24, 1998

Dwyer et al. (Dwyer), "Creating a Virtual Classroom for Interactive Education on the Web," pgs. 1-9 (WWW'95).

Houstis et al. (Houstis), "Internet, Education, and the Web," Proceedings of WET ICE, pgs. 27-32 (1996).

Goldberg et al. (Goldberg), "World Wide Web - Course Tool: An Environment for Building WWW-Based Courses," Fifth Int'l World Wide Web Conference, pgs. 1-16 (May 1996).

Hamalainen et al. (Hamalainen), "Electronic markets for learning: Education brokerages on the Internet," Communications of the ACM, pgs. 1-9 (June 1996).

Claims 1, 2, 4-7, 9, 11-19, and 21-26 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Houstis in view of Dunn as to claims 1, 2, 4-7, 9, 11, 16-19, 21 and 24-26. To this basic combination of references the examiner adds Dwyer as to claim 12; adds Goldberg as to claims 13, 14, 22 and 23 and adds Hamalainen as to claim 15.

Rather than repeat the positions of the appellant and the examiner, reference is made to the brief for appellant's positions and to the final rejection and answer for the examiner's positions.

OPINION

For the reasons set forth by the examiner in the final rejection and answer, as amplified upon here, we sustain each of the four stated rejections of all the claims on appeal.

At the outset, we note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of a primary reference. It is also not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 414, 425, 208 USPQ 871, 881 (CCPA 1981); In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991).

It is noted by the examiner at page 4 of the answer, the arguments presented in the brief are duplicative for each independent claim, 1, 16, 18 and 25 on appeal as confirmed by appellant during oral hearing. At the outset then we treat the first stated rejection of claims 1, 2, 4-7, 9, 11, 16-19, 21 and 24-26 as being obvious over Houstis in view of Dunn. This rejection includes each independent claim, 1, 16, 18 and 25.

Initially, we treat the teachings and suggestions of the references individually. As the title reflects, the article by Houstis reflects a distance learning environment facilitated by the use of the Internet or the web, in the context of a university teaching its own students. Significantly, what topic 2 reveals at page 27, column 2 is that it was known to Houstis to utilize a local cable television system with which to present to students videotaped or live lectures being shown on some local cable television channel. This teaching alone compares with the basic cable TV environment of Dunn. Dunn enhances cable television systems by teaching the ability to provide an interactive television system for video-on-demand programs. The interactive nature of the programs in Dunn is compared with the teaching value at the first column at page 28 of Houstis where it is explained that an interactive multimedia nature of his approach would utilize student controls with the use of point-and-click devices (e.g., a mouse) that allows the student to control "the flow of the lecture." This capability alone would appear to us to teach or suggest to the artisan the ability to stop, start or even repeat all or a portion of a given lecture. The same capability exists within Dunn for the user to purchase or repurchase a complete video-on-demand program or, as

emphasized by the examiner in the final rejection and answer, the teachings at columns 7 and 8 (particularly those in the paragraph bridging columns 7 and 8) permit the ability to optionally roll back a commercial purchased program so that it may be repeated to refresh the viewer with the sequence of events before the viewer last stopped receiving the broadcast. It is this interactive multimedia nature of both references that the examiner urges, and with which we fully agree, permits the interactive data processing devices of both references to meet or suggest the subject matter at the end of each independent claim on appeal reciting the ability of the user to go to a second location preceeding the first stopped location for a retransmission of at least a portion of the educational material already transmitted.

Appellant does not argue the computerized environment of the front end and student-user environment of Houstis, which also compares with the interactive television system 20 of Figure 1 of Dunn including its headend server 22 in Figure 1 as well as each of the respective set top boxes (STB) 26a otherwise known as the user interface unit shown in Figure 2 of Dunn. To prohibit non-student use of the system in Houstis, column 1, page 29 of this reference contemplates the use of coded or cryptographic protocols. It has been well known that similar types of coding

environments exist for set top boxes of video cable environments. The data structures within the database of Dunn at Figure 4 show respective viewer Id's, which may exist separately even within the same household as taught in Dunn.

Houstis teaches virtual classes running on a class-on-demand server as contemplated at the top of column 1 at page 29 of this reference, where this server would be accessible over the Internet or other kind of network environment. This concept is expanded upon at page 30 to indicate that this server would be considered a multimedia-type server with high bandwidth connectivity between the machines. Note page 30, column 1. Additionally, the future work topic 6 at columns 1 and 2 at page 32 contemplates the use of digital video facilities utilizing a high bandwidth connectivity system such as cable connections within campus buildings of a university. This digital video material would be accessible by the digital video multimedia servers. This is essentially the same architecture which is taught in Dunn.

The discussion at columns 1 and 2 of Dunn indicates that this reference contemplates the use of the ability to sequence or order-on-demand movies, video games, television shows and other video content programs from cable user's homes on their own time

schedule. The nature of the programs is also contemplated to be "those commonly provided in the past by on-line computer services." Column 2, lines 48-49. We do not therefore regard, nor do we believe, that the artisan would have regarded any patentable distinction between the nature of the broadly defined "educational materials" recited in each claim on appeal from that clearly specifically taught in Houstis and that which may be considered by the user as educational material from the content of these noted environments or the nature of the programs taught in the cable environments of both references. Houstis is more explicit as to the nature of the information that is claimed than is Dunn. Depending on the nature of the material downloaded in Dunn, the user and/or artisan would have well-considered the nature of any of the earlier identified programs as educational depending on the subjective user or intent desired.

The bottom of column 4 of Dunn contemplates in Figure 2 that analog to digital and digital to analog converters would have been necessary within the user interface unit or set top box 60 shown in this figure. To an artisan, this obviously would have compared to the nature of the cable environments contemplated within Houstis. This assessment of both references, in addition

to the reasoning advanced by the examiner at pages 2-4 of the final rejection and pages 4-8 of the answer, convinces us that the examiner's rationale for combinability of the teachings and suggestions of both references is well founded, in fact, and is consistent within 35 U.S.C. § 103. We therefore do not agree with appellant's continued urging in the brief that the examiner has exercised prohibited hindsight, that is, looking to his own specification and claims as guidance for the combination of Houstis and Dunn. Our expanded assessment of both references earlier in this opinion confirms that the examiner has merely relied upon evidence clearly available in the prior art even to the point that both references relied upon have significant overlapping and cumulative teachings.

It appears that the issue of analogous art has been raised more forcefully by appellant during earlier prosecution than in the brief. However, we are convinced that the examiner's analysis, such as at pages 8 and 9 of the final rejection and pages 7 and 8 of the answer is proper. There, the examiner properly relied upon existing case law that sets for the proper requirements as to what analogous art is within 35 U.S.C. § 103. We essentially repeat it here.

The test to determine whether the prior art is analogous is: "(1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." In re Clay, 966 F.2d 656, 658-59, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992)(citing In re Deminiski, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986); In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). Note also the common sense analysis in In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992) as to what fields of endeavor an artisan would reasonably be expected to look for a solution to the problems facing the appellant. We see a similarity of structure and function of the claimed invention with the structure in both Houstis and Dunn. Note In re Ellis, 476 F.2d 1370, 1372, 177 USPQ 526, 527 (CCPA 1973), which is relied upon at the end of Clay.

Although the examiner's rationale as to analogous art appears to focus upon Dunn as being in the same field of endeavor as appellant's disclosed invention, an assertion with which we fully agree, our earlier detailed assessment of both Dunn and Houstis clearly would have indicated to the artisan that both

references were in the same field of endeavor as appellant's disclosed and claimed invention to the extent it is broadly recited in the independent claims on appeal and, furthermore, that they were both reasonably pertinent to the problems with which appellant was concerned.

We now turn to dependent claims 2, 4-7, 9, 11, 17, 19, 21, 24, and 26 which all depend from independent claims 1, 16, 18 and 25, all of which have been rejected under the first stated rejection relying upon Houstis in view of Dunn. The examiner has essentially set forth no correlation in the final rejection or answer of the features for each of these dependent claims even though they are specified to have been rejected thereunder. For his part, appellant has merely set forth in the brief an assertion of patentability based upon the respective parent independent claims and only what amounts to a general argument of patentability for each of them respectively. This approach appears to violate Rule 37 CFR § 1.192.

Notwithstanding these deficiencies with respect to both the examiner and the appellant's positions as to all these earlier noted dependent claims, we sustain the rejection of each of them. Our earlier assessment of each of the references has indicated to us that the approach followed by appellant in each of the

respective dependent claims of using the alternative to recite plural alternative recitations alone or in combination with other alternative recitations is taught or suggested within the confines of either or both of the references relied upon to Houstis and Dunn. The digital nature of the environment in Dunn is apparent as is the use of the complementary digital video cable environments contemplated at the end of Houstis. It was known in the art to use clearly analog video information as expressed at column 2 at page 27 of Houstis as well as that which is known for conventional cable systems as in Dunn. Thus, the features of dependent claim 2 are clearly taught by both references. The same may be said of dependent claim 4. The nature of the broadly recited information in the initial portion of dependent claim 5 is clearly taught by both references and Houstis clearly contemplates the use of testing material to test the student's mastery of the educational information. The ability to identify each cable user in Dunn is complemented by the ability contemplated at page 29, column 1 of Houstis of the need to identify registered versus nonregistered students.

As to dependent claim 6, the context of multimedia information is clearly taught in both references. The ability for the student to select the "flow of the lecture" at column 1

at page 28 of Houstis is complemented by the examiner-identified teachings at columns 7 and 8 of Dunn. The discussion at column 6 in addition to the separate memory pointer addressability feature at Figure 4 and discussed at column 8 clearly indicate the processing device essentially performs computational operations to determine the present and/or any previous location for the student for review purposes as in dependent claim 7. Both references teach the subject matter of dependent claim 9. The remote locations of the source and reception of the educational materials of dependent claim 11 is taught by both references. As to the subject matter of dependent claim 17, the features recited here correlate with those discussed earlier with respect to claim 2.

The subject matter of dependent claim 19 compares with our earlier discussion with respect to claim 7. Both references teach the subject matter of dependent claim 21.

As to claim 24, this claim appears to encompass the repetition of the entire subject matter of a whole lecture, for example, as well as any portion thereof, which clearly has been indicated earlier to be within the ambient of the teachings and suggestions of both references. Our discussion of Dunn with respect to claim 7 indicates that the data processing system of

this reference in part has some control over the programmable selection of the amount of material for review as in dependent claim 26, as well as the individual, the latter feature of which is clearly taught by "the flow" teaching identified at column 1 of page 28 of Houstis.

We turn next to the separately stated rejections of various dependent claims. The examiner relies upon Dwyer in combination with Houstis and Dunn to reject dependent claim 12. This rejection is essentially set forth at pages 4 and 5 of the final rejection. For his part, appellant merely argues again patentability as being based upon the arguments presented with respect to its parent independent claim 1 and its intermediate dependent claim 11. Appellant does not argue that Dwyer does not teach the features argued by the examiner to be in this reference nor does the appellant argue that Dwyer is not properly combinable with Houstis and Dunn within 35 U.S.C. § 103. We are, therefore, unpersuaded by appellant of the patentability of dependent claim 12.

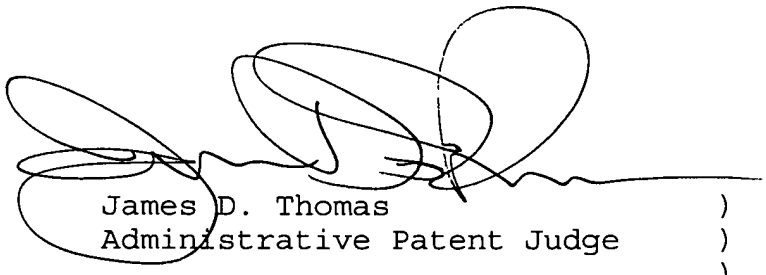
The examiner has separately relied upon Goldberg as additional teachings combinable with Houstis and Dunn within 35 U.S.C. § 103 as to dependent claims 13, 14, 22 and 23 at pages 5 and 6 of the final rejection. Additionally, the examiner has

relied upon Hamalainen as combinable with Houstis and Dunn within 35 U.S.C. § 103 to reject claim 15 at page 6 of the final rejection. Since appellant has followed the same approach with respect to these latter two separately stated rejections, as has been followed by him in the brief as to claim 12, we sustain the rejection of them as well.

In view of the foregoing, the examiner's decision to reject claims 1, 2, 4-7, 9, 11-19, and 21-26 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED



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APPENDIX

1. An apparatus for providing educational materials, comprising:

a processing device for processing a request from an individual to receive educational material, wherein said educational material is at least one of video material, audio material, and video and audio material;

a memory device for storing said educational material;

a transmitter for transmitting said educational material to the individual in response to said request to receive said educational material, wherein said transmitter is controlled by said processing device; and

a receiver for receiving a transmission termination signal from the individual;

wherein said processing device terminates the transmission of said educational material in response to the termination signal, and further wherein said processing device at least one of identifies, records, and stores, a first location, wherein said first location is the location in said educational material where the transmission of said educational material is terminated, and further wherein a subsequent transmission of said educational material to the individual commences from a second location which is located before said first location in said educational material, and further wherein said subsequent transmission of said educational material includes a transmission of at least a portion of said educational material previously transmitted to the individual.